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EXAMINER

DAO, MINH D

ART UNIT PAPER NUMBER

2682

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/848,441	Applicant(s) SINGHAL ET AL.	
	Examiner MINH D DAO	Art Unit 2682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06/30/2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-2, 4-17, 25-27, 29-42 are rejected under 35 U.S.C. 102(e) as being anticipated by Stewart (US Patent 6,452,498).

Regarding claim 1, Stewart teaches a system for delivering location-based services (See fig.1, col. 3, lines 55-67) to mobile clients (See fig.1, item 5) in a building structure (col. 5, lines 34-42) using short-range wireless technology (Col. 3, lines 65-67; col. 4, lines 1-8), comprising: a plurality of short-range wireless communication devices (item 5), each of the mobile clients equipped with at least one of the devices; a plurality of short range wireless access points (items 10) adapted for communicating with the mobile clients via the short-range wireless communication devices (See fig. 1, col. 3, lines 20-45); a location registry having means for tracking a location of each of the mobile clients (See fig. 1, item MIB; col. 4, lines 20-33; col. 6, lines 20-37); access point

software (col. 5, lines 19-28) for enabling communication of information between the location registry and the access point; and one or more location aware service proxies, each of the location aware service proxies adapted for intercepting client requests from ones of the mobile clients and for delivering responses thereto, the responses comprising location-sensitive information generated in view of the tracked location of the respective mobile client (See fig. 1, item 15, Network; col. 5, lines 11-19; col. 5, lines 43-67; and item 20, service and Information Provider, col. 6, lines 49-54).

Regarding claim 2, Stewart teaches a system as recited in claim 1, wherein, for at least one of the wireless access point, the access point software is maintained on an adapter coupled thereto (col. 5, lines 19-28).

Regarding claim 4, Stewart teaches a system as recited in claim 1, wherein the wireless access points include means for detecting an identity of a system user (col. 4, lines 1-8).

Regarding claim 5, Stewart teaches a system as recited in claim 1, wherein the wireless access points have means for detecting one or more mobile client characteristics (col. 4, lines 1-8).

Regarding claim 6, Stewart teaches a system as recited in claim 1, wherein the location registry further comprises: means for receiving notification information from the wireless access points; and means for maintaining a table listing of wireless access points

associated with each of the mobile clients, responsive to the means for receiving (See fig. 1, item MIB; col. 4, lines 20-33; col. 6, lines 20-37).

Regarding claim 8, Stewart teaches a system as recited in claim 1, wherein the one or more location aware service proxies comprise at least one of: an HTTP proxy, a WSP proxy, a DNS proxy, a message proxy and a directory proxy (col. 6, lines 49-54).

Regarding claim 9, Stewart teaches a system as recited in claim 8 wherein the DNS proxy includes means for determining an IP address for a requested host name, and upon determining that the requested host name corresponds to a location-based service, means for considering a client location of a particular mobile client requesting the host name when determining the IP address (col. 6, lines 49-54).

Regarding claim 10, Stewart teaches a system as recited in claim 8 wherein the message proxy includes means for filtering a list of current messages requested from a message server based upon a requesting client's location (col. 6, lines 49-59).

Regarding claim 11, Stewart teaches a system as recited in claim 1, further comprising a protocol proxy, the protocol proxy annotating content received from a particular one of the service proxies (col. 6, lines 20-37).

Regarding claim 12, Stewart teaches a system as recited in claim 1, wherein the location registry further comprises a query interface with which the protocol proxy can obtain location information about a mobile client (col. 6, lines 20-37).

Regarding claim 13, Stewart teaches a system as recited in claim 1 wherein at least one of the location aware service proxies further comprises a protocol proxy (col. 6, lines 20-37).

Regarding claim 14, the claim is the method claim, and has the same limitations as in claim 1, therefore is rejected for the same reason set forth in the rejection of claim 1.

Regarding claim 15, Stewart teaches a method as recited in claim 14, wherein the step of communicating further comprises communicating information from one more adapters coupled to the access points to the location registry (See fig.1, item 15); (Col. 3, lines 65-67; col. 4, lines 1-8).

Regarding claim 16, Stewart teaches a method as recited in claim 14, further comprising the step of continually monitoring traffic generated by the mobile clients via the access point software (col. 5, lines 11-28; col. 5, lines 19-34).

Regarding claim 17, Stewart teaches a method as recited in claim 14, further comprising the step of transmitting a register notification from a selected wireless

access point to the location registry upon detecting a new mobile client address on the selected wireless access point (See fig. 1, item MIB; col. 4, lines 20-33; col. 6, lines 20-37).

Regarding claim 25, Stewart teaches a method as recited in claim 14, further comprising the step of transmitting notification information from the wireless access points to the location registry, the location registry maintaining a table listing of current access points associated with each of the mobile clients based upon the transmitted notification information (See fig. 1, item MIB; col. 4, lines 20-33; col. 6, lines 20-37).

Regarding claim 26, Stewart teaches a method as recited in claim 14, further comprising the step of identifying a system user or a mobile client characteristic in the information communicated from at least one of the access points to the location registry (col. 4, lines 1-8).

Regarding claim 27, Stewart teaches a method as recited in claim 17, further comprising the step of adding an access point identifier of the selected access point to a location list for a particular client upon receiving the transmitted registration notification (See fig. 1, item MIB; col. 4, lines 20-33; col. 6, lines 20-37).

Regarding claim 29, Stewart teaches method as recited in claim 14, wherein the providing step further comprises the steps of: generating responses to the intercepted

client requests, wherein the generated responses incorporate location sensitive information; and transmitting the generated responses from the location aware service proxies to the mobile clients from which the client requests were intercepted (col. 4, lines 48-59).

Regarding claim 30, Stewart teaches a method as recited in claim 14 wherein at least one of the location aware service proxies further comprises a DNS proxy adapted for determining an IP address for a host name requested in a particular intercepted client request and upon determining that the requested host name corresponds to a location-based service, for considering, when determining the IP address, the tracked location of particular mobile client from which the client request was intercepted (col. 4, lines 48-59; col. 6, lines 49-54).

Regarding claim 31, Stewart teaches a method as recited in claim 14 wherein at least one of the location aware service proxies further comprises a message proxy adapted for filtering a list of current messages received from a message server, based upon the tracked location of a particular mobile client to which the message pertain (col. 6, lines 49-59).

Regarding claim 32, Stewart teaches a method as recited in claim 14, further comprising the step of annotating content received by a protocol proxy from one of the location aware service proxies with available services (col. 6, lines 20-37).

Regarding claim 33, the claim has the same limitations as that of claim 3 and therefore are interpreted and rejected for the same reason set forth in the rejection of claim 3.

Regarding claim 34, Stewart teaches a system as recited in claim 1, wherein the location aware service proxy is adapted for intercepting requests of a particular type (col. 6, lines 49-50).

Regarding claim 35, the claim has the same limitations as that of claim 29 and therefore are interpreted and rejected for the same reason set forth in the rejection of claim 29.

Regarding claim 36, the claim has the same limitations as that of claim 25 and therefore are interpreted and rejected for the same reason set forth in the rejection of claim 25.

Regarding claim 37, Stewart teaches a system as recited in claim 35, wherein the determined location comprises geographic coordinates of ones of the access points with which the particular client is currently associated (col. 4, lines 20-33).

Regarding claim 38, cited reference Stewart does not mention building and room number associated with the location of the access point. However, the locations where the geographic coordinates of the access points taught by Stewart should inherently be

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associated with building and room numbers of the access point in the case where the access point are within a building.

Regarding claim 39, Stewart teaches a system as recited in claim 1, wherein each location aware service proxy is further adapted for contacting a third-party information source to obtain information used in generating the location-sensitive information (col. 4, line 48-59).

Regarding claim 40, the claim has the same limitations as that of claim 11 and therefore are interpreted and rejected for the same reason set forth in the rejection of claim 11.

Regarding claim 41, Stewart teaches a system as recited in claim 40, wherein the available services result from a location-sensitive filtering of an available services list (col. 6, lines 20-37).

Regarding claim 42, Stewart teaches a method as recited in claim 32, wherein at least one of the available services annotations further comprises a link to one of the available services (col. 6, lines 20-37).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 3, 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stewart (US Patent 6,452,498).

Regarding claim 3, Stewart teaches a system as recited in claim 1, further comprising at least one active client list, each of the active client lists maintained by a distinct one of the wireless access points and addresses for ones of the clients which are currently visible to the maintaining wireless access point (col. 5, lines 19-34, in this case, the

"allow all users access to all service providers on a network or to allow selected users access to selected service providers" reads on the maintained, by one of the access points, active client list of the present invention).

Still regarding claim 3, cited reference Stewart fails to teach a use of the Medium Access Control (MAC) address. However, it is taken that official notice that the addresses of the clients contained in the active list of Stewart could be MAC addresses that is commonly used in LAN networks for data packet transmission. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the system of Stewart so that it would implement MAC address to identify its users for the benefit of globally using the MAC scheme to relate LAN network users with each other.

Regarding claims 22 and 23, the claims have the same limitations as that of claim 3 and therefore are interpreted and rejected for the same reason set forth in the rejection of claim 3.

Regarding claim 24, the claim has the same limitations as that of claims 3 and claim 18 and therefore are interpreted and rejected for the same reason set forth in the rejections of claims 3 and 18.

3. Claims 18-21 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stewart (US Patent 6,452,498) in view of Lee et al. (US 6,535,493).

Regarding claim 18, cited reference Stewart teaches the limitations as that of claim 14. However, Stewart did not specifically mention a reverse registration notification upon detecting a mobile departure from an access point. Lee, in an analogous art, teaches this limitation (col. 3, lines 18-25). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the teaching of Lee to Stewart in order to reduce the network processing keeping track of the mobile's location.

Regarding claim 19, the combination of the teachings of Stewart and Lee teaches a method as recited in claim 14, further comprising the step of monitoring, by a particular one of the access points, a quantity of time elapsed since a previous detection of traffic for each of the mobile clients which is currently considered active by the particular one (Reference Lee, col. 3, lines 18-25).

Regarding claim 20, the combination of the teachings of Stewart and Lee teaches method as recited in claim 19, further comprising the step of defining a mobile client departure from a wireless access point when the quantity of elapsed time exceeds a particular value (Reference Lee, col. 3, lines 18-25).

Regarding claim 28, the combination of the teachings of Stewart and Lee teaches a method as recited in claim 18, further comprising the step of removing an access point ID from the location list for a particular client ID upon receiving a reverse registry notification (Reference Lee, col. 3, lines 18-25).

Regarding claim 21, the claim has the limitations as that of claims 18, 19 and 20 as mentioned above, therefore it is interpreted and rejected for the same reason set forth in the rejections of claims 18, 19, and 20.

Response to Arguments

4. Applicant's arguments on page 20 filed 06/30/2004 regarding claim 1 and 14 have been fully considered but they are not persuasive.

In response to the argument on page 20 regarding claim 1 and 14 filed 06/30/2004, the Applicant argues that reference Stewart does not teach a Service Proxy that intercepts clients requests. However, the examiner disagrees. Network 15 and Service and Information Provider 20 in fig. 1 clearly are Service Proxies (See fig. 1, item 15, Network; col. 5, lines 11-19; col. 5, lines 43-67; and item 20, service and Information Provider, col. 6, lines 49-54).

In response to the argument on pages 20 and 22 regarding claim 22 filed 06/30/2004, the Applicant argues that Stewart does not teach "maintaining an active list associated with each access point". Examiner disagrees. In col. 5, lines 19-25, Stewart teaches a

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system that includes a plurality of APs and mobiles units that could be configured to allow selected users access to selected service providers. Therefore, it is obvious that in order to know who are the selected users the access points must have a list of active users who are selected to access to the services.

5. The objection of claim 21 has been withdrawn.

6. Applicant's arguments with respect to claims 19 and 28 on pages 21 and 22 filed on 06/30/2004 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

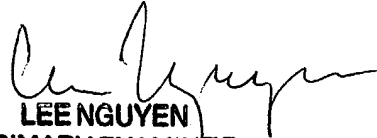
Any inquiry concerning this communication or earlier communications from the examiner should be directed to MINH D DAO whose telephone number is 703-305-5589. The examiner can normally be reached on 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, VIVIAN C CHIN can be reached on 703-308-6739. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Minh Dao
Examiner
Art Unit 2682
October 25, 2004 *MD*


LEE NGUYEN
PRIMARY EXAMINER